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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,208	11/28/2001	Gregory W. Cox	CML00090N(69611)	1240
22242	7590	11/26/2004	EXAMINER	
FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406			PHILPOTT, JUSTIN M	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/996,208

**Applicant(s)**

COX ET AL.

**Examiner**

Justin M Philpott

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 16-18 are objected to because of the following informalities: the claims comprise an excessive amount of repetitive language which fails to further limit the claim.

Specifically, the following language should be *removed* from the respective claims:

“wherein automatically identifying whether the router needs a new address prefix for the identified active communication link further comprises automatically determining whether the router needs a new address prefix for the identified active communication link” (claim 6, lines 1-4); “wherein automatically determining whether the router needs to advertise a new address prefix for use by link endpoints further comprises determining whether the router needs to advertise a new address prefix” (claim 17, lines 1-4); and “wherein automatically identifying whether the router needs to support the identified active communication link further comprises automatically identifying whether the router needs to support the identified active communication link” (claim 18, lines 1-4). Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 8-10 and 16-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Specifically, claim 8 recites the new limitation, “wherein an active communication link can support communications but need not be coupled to an endpoint or another router when so identified” (lines 6-7). Applicant’s specification, however, does not provide a corresponding enabling description of this feature. On the contrary, applicant’s specification teaches exactly the opposite, that an active communication link specifically corresponds to a router 104 being coupled to an access point 113 or an existing router 102/103 (see page 4, lines 17-31, and specifically lines 21-23, and FIG. 1). Further, applicant’s specification provides no alternative to this embodiment of FIG. 1. That is, applicant fails to disclose an embodiment or enabling description wherein an active communication link comprises a link which is *not* coupled to an endpoint or another router. Accordingly, the above-mentioned added limitations to claim 8 are clearly not enabled by applicant’s specification.

Claims 9, 10 and 18 depend upon claim 8 and are therefore rejected for the same reason.

Claim 16 recites, “wherein an address prefix serves as a *component of addresses* on a communication link to allow *endpoints and routers to generate new addresses* for use on that communication link and wherein the router needs a new address prefix when no address prefix has been previously established for the identified active communication link” (emphasis added). Applicant’s specification, however, does not provide a corresponding enabling description of these limitations.

Claim 17 recites, “wherein a router *advertises a prefix* on an identified active communication link by *sending a message containing the prefix to all nodes present on the*

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*communication link*” (emphasis added). Applicant’s specification, however, does not provide a corresponding enabling description of these limitations.

Further, claim 18 recites, “wherein a router supports an active communication link by advertising an address prefix on that communication link and by *facilitating packet-forwarding activities between the communication links via the router*” (emphasis added). Applicant’s specification, however, does not provide a corresponding enabling description of these limitations.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,532,217 to Alkhatib et al. in view of U.S. Patent No. 6,178,455 to Schutte et al.

Regarding claims 1-3, 8 and 11-13, Alkhatib teaches a method comprising a router: identifying active communication links to provide identified active communication links (e.g., see col. 5, lines 15-49 and FIG. 2 regarding devices 72, 74 and 76 and communication links to subnet 70); and automatically identifying whether the router needs a new address prefix for the identified active communication link (e.g., see col. 3, lines 27-41 wherein finding a conflict identifies a new address prefix is required).

Further, regarding claim 8, Alkhatib teaches automatically identifying whether the router needs to support the identified active communication link (e.g., see col. 4, lines 35-53 wherein the routing table determines whether the router is to support the link, or if packets should be forwarded to another router).

However, Alkhatib may not specifically disclose the router has at least two interfaces and connects multiple communication links to one another.

Schutte, like Alkhatib, also teaches a method of routing and, specifically, teaches a router (e.g., router 101, see FIGS. 1 and 2) has at least two interfaces (e.g., 124 coupled to a WAN and 120 coupled to a LAN) and connects multiple communication links to one another (e.g., see col. 7, lines 28-46). Additionally, regarding claim 8, Schutte also does not require an active communication link to be coupled to an endpoint or other router (e.g., see col. 22, line 52 – col. 23, line 14, and specifically col. 23, lines 12-14 wherein an active communication link is coupled to a modem, and not an endpoint or another router). The teachings of Schutte provides increased efficiency for address assignment in a network (e.g., see col. 3, line 28 – col. 4, line 11). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the routing teachings of Schutte to the routing method of Alkhatib in order to provide increased efficiency for address assignment in a network (e.g., see col. 3, line 28 – col. 4, line 11).

Regarding claims 4 and 14, Alkhatib teaches automatically determining whether the router needs to advertise a new address prefix for use by link endpoints (e.g., step 94 in FIG. 3A; see also col. 5, line 50 – col. 12, line 63, and specifically col. 10, lines 23-32).

Regarding claims 5, 6, 9 and 10, Alkhatib teaches automatically monitoring the identified active communication link for prefix advertisements from another router and determining when

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the router has not received a prefix advertisement from another router for the same active communication link within a predetermined period of time, wherein the router then needs to support the identified active communication link (e.g., see col. 9, line 39 – col. 11, line 45).

Regarding claims 7 and 15, Alkhatib teaches automatically determining whether the router needs to advertise an address prefix for use by link endpoints by soliciting at least one router to advertise (e.g., see col. 5, lines 50-59).

Regarding claim 16, Schutte teaches an address prefix (e.g., net ID 605 in FIG. 9) serves as a component of addresses on a communication link to allow endpoints and routers (e.g., router 101) to generate new addresses for use on that communication link, wherein the router needs a new address prefix when no address prefix has been previously established for the identified active communication link (e.g., see col. 3, line 65 – col. 4, line 11; see col. 24, line 11 – col. 25, line 42). As discussed above, the teachings of Schutte provides increased efficiency for address assignment in a network (e.g., see col. 3, line 28 – col. 4, line 11). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the routing teachings of Schutte to the routing method of Alkhatib in order to provide increased efficiency for address assignment in a network (e.g., see col. 3, line 28 – col. 4, line 11).

6. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alkhatib in view of Schutte, further in view of applicant's admitted prior art (AAPA).

Regarding claims 17 and 18, Alkhatib in view of Schutte teach the method discussed above regarding claims 4 and 8, however, may not specifically disclose a router advertises a prefix on an identified active communication link by sending a message containing the prefix to

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nodes present on the communication link. However, applicant admits such a step is well known in the art (see applicant's specification, page 5, lines 29-32, wherein applicant states, "prior art routers often advertise their address prefixes on their supported links to facilitate stateless autoconfiguration by endpoints"). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to configure the router to advertise a prefix on the identified active communication link by sending a message containing the prefix to nodes present on the communication link, since applicant admits that such a step is well known in the art and further provides the advantage of facilitating stateless autoconfiguration by endpoints. Further, regarding claim 17, while AAPA may not specifically disclose sending the message to *all* nodes present, it is well known in the art of routing that sending a message to a plurality of nodes in a network may comprise sending the message to all nodes present in the network. Further, applicant is reminded that, as discussed above, applicant's specification does not disclose, and therefore is not enabling for, this limitation of sending the message to *all* nodes present. Thus, even if such a limitation were not obvious, applicant's specification is not enabling for this limitation in claim 17.

Further, regarding claim 18, Schutte teaches the router (e.g., router 101) supports the active link by facilitating packet-forwarding activities between the communication links via the router (e.g., see col. 22, line 52 – col. 23, line 21). As discussed above, the teachings of Schutte provides increased efficiency for address assignment in a network (e.g., see col. 3, line 28 – col. 4, line 11). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the routing teachings of Schutte to the routing method of Alkhatib in order to



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provide increased efficiency for address assignment in a network (e.g., see col. 3, line 28 – col. 4, line 11).

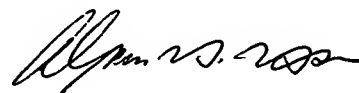
***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 571.272.3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Justin M Philpott



**ALPUS H. HSU  
PRIMARY EXAMINER**